

04-29-04

DACS
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PATENTS
112025-0138
1584



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re The Application of:)
Kui Zhang et al.)
Serial No.: 09/345,193)
Filed: June 30, 1999)
For: METHOD AND APPARATUS)
FOR MEASURING LATENCY)
OF A COMPUTER NETWORK)

RECEIVED
APR 30 2004
OFFICE OF PETITIONS
Art Unit: 2664

Cesari and McKenna, LLP
88 Black Falcon Avenue
Boston, MA 02210
April 27, 2004

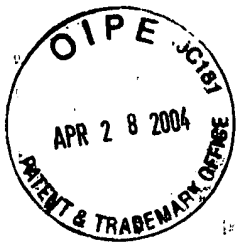
"Express Mail" Mailing-Label Number: EV 335588024 US

Office of the Deputy Commissioner for Patent Examination Policy
ATTN: Office of Patent Legal Administration
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

PETITION TO CORRECT FILING DATE

Applicants hereby petition to correct the filing date of the above-identified application. Although this application was accorded a filing date of June 30, 1999, the correct filing date should be July 1, 1999 (one day later), which is the date on which the last part necessary to complete this application was received by the Patent and Trademark Office. In particular, the papers corresponding to this application incorporate by reference a second patent application that, although intended to be filed on the same day as the present



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Serial No.: 09/345,193

Filed: June 30, 1999

For: METHOD AND APPARATUS FOR
MEASURING LATENCY OF A
COMPUTER NETWORK

Examiner: Jain, Raj K

Art Unit: 2664

Cesari and McKenna, LLP
88 Black Falcon Avenue
Boston, MA 02210
April 28, 2004

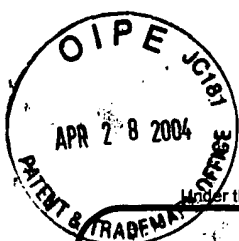
EXPRESS-MAIL DEPOSIT

"Express Mail" Mailing-Label Number: EV 335588024 US

The following papers are being deposited with the United States Postal Service
"Express Mail Post Office to Addressee" service pursuant to 37 C.F.R. §1.10:

X Petition to Correct Filing Date
X Fee Transmittal Letter

X Return Receipt Postcard
X Check in the amount of \$130.00



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

FEE TRANSMITTAL for FY 2003

Effective 01/01/2003. Patent fees are subject to annual revision.

☐ Applicant Claims Small Entity Status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$) 130

Complete if Known

Application Number	09/345,193	RECEIVED
Filing Date	June 30, 1999	
First Named Inventor	Kui Zhang et al	APR 30 2004
Examiner Name	Jain, Raj K	
Group Art Unit	2664	OFFICE OF PETITIONS
Attorney Docket No.	112025-0138	

METHOD OF PAYMENT (check all that apply)

☒ Check ☐ Credit Card ☐ Money ☐ Other ☐ None
☒ Deposit Account Order

Deposit
Account
Number

03-1237

Deposit
Account
Name

Cesari and McKenna, LLP

The Commissioner is authorized to: (check all that apply)

Charge any deficiency or

☐ Charge fee indicated below ☒ Credit any overpayments
☐ Charge any additional fee(s) during the pendency of this application
☐ Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.

FEE CALCULATION

1. BASIC FILING FEE

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1001	750	2001	375	Utility filing fee	
1002	330	2002	165	Design filing fee	
1003	520	2003	260	Plant filing fee	
1004	750	2004	375	Reissue filing fee	
1005	160	2005	80	Provisional filing fee	
SUBTOTAL (1)				(\$)	0

2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

				Extra Claims	Fee from below	Fee Paid			
Total Claims	<input type="text"/>	-	20**	=	<input type="text"/> 0	×	<input type="text"/>	=	<input type="text"/> 0
Independent Claims	<input type="text"/>	-	3**	=	<input type="text"/> 0	×	<input type="text"/>	=	<input type="text"/> 0
Multiple Dependent							<input type="text"/>	=	<input type="text"/> 0

<u>Large Entity</u>		<u>Small Entity</u>		Fee Description
Fee Code	Fee (\$)	Fee Code	Fee (\$)	
1202	18	2202	9	Claims in excess of 20
1201	84	2201	42	Independent claims in excess of 3
1203	280	2203	140	Multiple dependent claim, if not paid
1204	84	2204	42	**Reissue independent claims over original patent
1205	18	2205	9	**Reissue claims in excess of 20 and over original patent
SUBTOTAL (2)				(\$)

**or number previously paid, if greater; For Reissues, see below

FEE CALCULATION (continued)

3. ADDITIONAL FEES

Large Entity Small Entity

Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description	Fee Paid
1051	130	2051	65	Surcharge - late filing fee or oath	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet	
1053	130	1053	130	Non-English Specification	
1812	2,520	1812	2,520	For filing a request for ex parte reexamination	
1804	920	1804	920*	Requesting publication of SIR prior to Examiner action	
1805	1,840	1805	1,840*	Requesting publication of SIR after Examiner action	
1251	110	2251	55	Extension for reply within first month	
1252	410	2252	205	Extension for reply within second month	
1253	930	2253	465	Extension for reply within third month	
1254	1,450	2254	725	Extension for reply within fourth month	
1255	1,970	2255	985	Extension for reply within fifth month	
1401	320	2401	160	Notice of Appeal	
1402	320	2402	160	Filing a brief in support of an appeal	
1403	280	2403	140	Request for oral hearing	
1451	1,510	1451	1,510	Petition to institute a public use proceeding	
1452	110	2452	55	Petition to revive - unavoidable	
1453	1,300	2453	650	Petition to revive - unintentional	
1501	1,300	2501	650	Utility Issue fee (or reissue)	
1502	470	2502	235	Design Issue fee	
1503	630	2503	315	Plant Issue fee	
1460	130	1460	130	Petitions to the Commissioner	
1807	50	1807	50	Processing fee under 37 CFR 1.17(q)	
1806	180	1806	180	Submission of Information Disclosure Stmt	
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	
1809	750	2809	375	Filing a submission after final rejection (37 CFR 1.129(a))	
1810	750	2810	375	For each additional invention to be examined (37 CFR 1.129(b))	
1801	750	2801	375	Request for Continued Examination (RCE)	
1802	900	1802	900	Request for expedited examination of a design application	
Other fee (specify)				Petition to Correct Filing Date	130
Other fee (specify)					
SUBTOTAL (3)				(\$)	130

*Reduced by Basic Filing Fee Paid

SUBMITTED BY

Complete (if applicable)

Name (Print/Type)	Michael R. Reinemann	Registration No. (Attorney/Agent)	38,280	Telephone	(617) 951-2500
Signature		Date	April 28, 2004		

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038. This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OF COMPLETED FORMS TO THIS

application, was not in fact filed until July 1, 1999. Because this second application represents a necessary part of the present application, the correct filing date of the present application is actually July 1, 1999.

A. The Materials Filed On June 30, 1999 Incorporate A Second Patent Application By Reference.

On June 30, 1999, Applicants submitted a specification (31 pages), drawings (7 sheets) and 17 claims by Express Mail pursuant to 37 C.F.R. §1.10. The Patent and Trademark Office assigned Application Serial No. 09/345,193 to these papers and accorded a filing of June 30, 1999. The specification filed on June 30, 1999, however, refers to, and incorporates by reference, a second application. More specifically, the specification of June 30, 1999 states as follows:

To the extent source and destination ports are used by entities 202 and 204, the port numbers are preferably selected in accordance with commonly owned and co-pending U.S. Patent Application Ser. No. [insert serial number] entitled A Protocol to Coordinate Network End Points to Measure Network Latency, which is hereby incorporated by reference in its entirety.

See Specification at page 14, lines 14-18 attached hereto as Exhibit A.

Later on at p. 22, the specification of June 30, 1999 refers to the second application as disclosing a preferred embodiment of an aspect of the invention, as follows:

In the preferred embodiment, the format of the test message corresponds to the Network Endpoint Control Protocol (NECP), as described in previously referenced and incorporated U.S. Patent Application Ser. No. [insert serial number].

See Specification at page 22, lines 3-6 attached hereto as Exhibit B. Reliance on a commonly assigned copending application for the purpose of completing a disclosure is permitted by the MPEP. See MPEP §608.01(p).

B. The Second Application Was Not Filed Until July 1, 1999

At the time, it was intended that these two applications would be filed on the same date, i.e., on June 30, 1999. It turns out, however, that the second application was not filed until July 1, 1999, i.e., one day later. More specifically, the second application was filed on July 1, 1999 by Express Mail pursuant to 37 C.F.R. §1.10. A copy of the filing receipt issued for the second application is attached hereto as Exhibit C.

This condition was apparently not discovered by the Patent and Trademark Office, and was only just discovered by counsel for the applicants. Upon learning of this situation, counsel for the applicants worked expeditiously to prepare and file this Petition to correct the filing date.

C. The Filing Date Of The Present Application Should Be Corrected To July 1, 1999

The rules of the Patent and Trademark Office as well as the long standing practice of the Office provide that papers claiming to be an application for patent will not be accorded a filing date until a complete application is received by the Patent and Trademark Office. See 37 C.F.R. §1.53; In re Bosie, 207 U.S.P.Q. 1139, 1141 (Comm'r Pat. & Trademarks 1979) (holding that by long standing practice of the Office, the "filing date of an incomplete application is the date on which the last part completing the application is filed in the Office.") The Court of Appeals for the Federal Circuit has similarly ruled that the "filing date of [a patent] application is the date on which the *complete* application, acceptable for placing in the files for examination is received in the Patent and Trademark Office; or the date on which the *last part completing* such application is re-

ceived”. Litton Systems, Inc. v. Whirlpool Corp., 728 F. 2d 1423, 1437; 221 U.S.P.Q. 97, 105 (Fed. Cir. 1984).

Because the second application describes the preferred embodiment of an aspect of the present invention, the second application contains material that is essential to the specification filed June 30, 1999. See MPEP §608.01(p) (defining “essential material” as that which describes the claimed invention, provides an enabling disclosure or describes the best mode). This essential material, however, was not received by the Patent and Trademark Office until the next day, i.e., July 1, 1999. Accordingly, the present application was not complete until then. See MPEP §506. In these circumstances, the correct filing date of the present application should be July 1, 1999, which is the date on which the last part of the application was received by the Patent and Trademark Office.

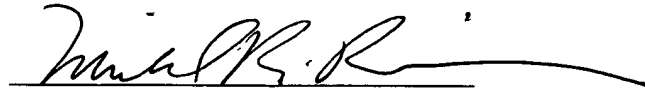
By virtue of the foregoing, Applicants respectfully request that the filing date of the present application be corrected to July 1, 1999.

Applicants submit a check in the amount of \$130 to cover the petition fee set forth at 37 C.F.R. §1.17(h).

PATENTS
112025-0138
1584

Please charge any additional fee occasioned by this paper to our Deposit Account
No. 03-1237.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Michael R. Reinemann", written over a horizontal line.

Michael R. Reinemann
Reg. No. 38,280
CESARI AND MCKENNA, LLP
88 Black Falcon Avenue
Boston, MA 02210-2414
(617) 951-2500

The session object 446 similarly includes a length field 462, a class number field 464, a class type field 466, an IP DA field 468, a protocol field 470 and a destination port field 472. Again, fields 462-466 are preferably loaded in accordance with the RSVP specification for session objects. IP DA field 468 is loaded with the IP address of destination entity 204 (Fig. 2), protocol field 470 preferably specifies the IP protocol of the anticipated data flow, which typically corresponds to the contents of protocol field 410 of IP header 402. Destination port field 472 contains the transport layer port to which message area 404 should be passed at destination entity 204. The contents of field 472 may also be de-asserted. Furthermore, if path message area 404 includes a sender tspec object 450, its contents (other than the corresponding length, class number, and class type fields) are also preferably de-asserted. By de-asserting the sender tspec object 450, source entity 202 stops layer 3 devices along the selected path from pre-reserving any bandwidth for the identified traffic flow.

To the extent source and destination ports are used by entities 202 and 204, the port numbers are preferably selected in accordance with commonly owned and co-pending U.S. Patent Application Ser. No. [insert serial number] entitled A Protocol to Coordinate Network End Points to Measure Network Latency, which is hereby incorporated by reference in its entirety.

After generating path state setup message 400, latency determination engine 340 preferably directs the message generator 344 to transmit it into the network 200 (Fig. 2) via network communication facility 346. Message 400 is first received by the layer 3 device to which source entity 202 is directly coupled (i.e., layer 3 device 206). In particular, message 400 is captured by one of the inbound communication interfaces 302a-c (Fig. 3), which determines that message 400 carries options area 418, including router alert option 422, and therefore should be further processed by device 206. Accordingly, the inbound interface 302 passes message 400 to the options processor 304, which examines options area 418 and determines that it includes source routing option 420 as well as router alert option 422. In response to the detection of router alert option 422, options processor 304 examines that portion of message 400 following the IP header 402 (i.e., path message area 404). Options processor 304 is preferably configured to recognize

cility 342 to create a time record or time stamp. Engine 340 places the time record into a test message and hands it down to the network communication facility 346 for transmission to destination entity 204. In the preferred embodiment, the format of the test message corresponds to the Network Endpoint Control Protocol (NECP), as described in previously referenced and incorporated U.S. Patent Application Ser. No. [insert serial number]. The network communication facility 346 preferably encapsulates the test message containing the time record in a corresponding packet. For example, the network communication facility 346 may first create one or more transport layer packets similar to the TCP packet of Fig. 1B, placing the test message from engine 340 into the data field 156. In the source port field 152, latency determination engine 340 directs communication facility 346 to load the value used in the source port field 460 of the sender template object 444 from the path state setup message 400 described above. In the destination port field 154, communication facility 346 is directed to load the value used in the destination port field 472 of the session object 446 from the path state setup message 400. The transport layer packet is then passed down to the respective network layer where it may be encapsulated in a corresponding network layer packet, which, in the preferred embodiment, is preferably similar to IP packet 100 of Fig. 1A. Significantly, the test message utilized with the present invention does not include any options, thus there is no options area 130. In the IP SA field 126 of the test message, network communication facility 346 loads the IP address of source entity 202 (as utilized in the IP SA field 458 of the path state setup message 400), and, in the IP DA field 128, it loads the IP address of destination entity 204 (as utilized in the IP DA field 468 of the path state setup message 400). In the protocol field 122, communication facility 346 places the value, if any, previously utilized in the protocol field 470 from the path state setup message 400.

Communication facility 346 then transmits the test message to destination entity 204. Those skilled in the art will understand that the IP packet containing the time record may be encapsulated in additional messages by other layers of the protocol stack utilized by the network communication facility 346 of source entity 202. The test message is first received at layer 3 device 206, which is coupled to source entity 202. In particular, the message is received at an inbound communication interface 302, and, since, it does not contain any options, it is passed directly to the packet classifier 308. The packet classi-

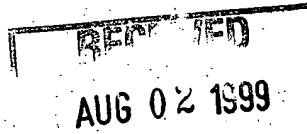
FILING RECEIPT



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
ASSISTANT SECRETARY AND COMMISSIONER
OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NUMBER	FILING DATE	GRP ART UNIT	FIL FEE REC'D	ATTORNEY DOCKET NO.	DRWGS	TOT CL	IND CL
09/346,080	07/01/99	2766	\$1,060.00	1120250137	4	28	5

WILLIAM A. LOGINOV
CESARI & MCKENNA
30 ROWES WHARF
BOSTON MA 02110



WAL
n/a 8/2/99

Receipt is acknowledged of this nonprovisional Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Customer Service Center. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts of Application" ("Missing Parts Notice") in this application, please submit any corrections to this Filing Receipt with your reply to the "Missing Parts Notice." When the PTO processes the reply to the "Missing Parts Notice," the PTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

Applicant(s) KUI ZHANG, CUPERTINO, CA; SATANARAYANA R. RAPARLA,
SAN JOSE, CA; JOHN LAUTMANN, FREEMONT, CA; FRANK G.
BORDONARO, LOS GATOS, CA.

IF REQUIRED, FOREIGN FILING LICENSE GRANTED 07/28/99

TITLE

A PROTOCOL TO COORDINATE NETWORK END POINTS TO MEASURE NETWORK
LATENCY

PRELIMINARY CLASS: 380

DATA ENTRY BY: BATIE, MARGARET

TEAM: 01 DATE: 07/28/99

(See reverse for new important information)

LICENSE FOR FOREIGN FILING UNDER
Title 35, United States Code, Section 184
Title 37, Code of Federal Regulations, 5.11 & 5.15

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NOT GRANTED

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PLEASE NOTE ---- The Following Information about the Filing Receipt:

The articles such as "a," "an" and "the" are not included as the first words in the title of an application. They are considered to be unnecessary to the understanding of the title.

The words "new," "improved," "improvement," "improvements in or relating to" are not included as the first words in the title of an application because a patent application is, by nature, a new idea or improvement.

The title may be truncated if it consists of more than 4 lines of 70 characters each (letters and spaces combined).

The inventor information may be truncated if the family name consists of more than 25 characters (letters and spaces combined) and if the given name consists of more than 25 characters (letters and spaces combined). The inventor's residence allows for up to 40 characters (letters and spaces combined).

The docket number allows a maximum of 12 characters.

If your application was submitted under 37 CFR 1.10, your filing date should be the "date in" found on the Express Mail label. If there is a discrepancy, you should submit a request for a corrected Filing Receipt along with a copy of the Express Mail label showing the "date in."

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